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| 09/725,716 | 11/30/2000 | Naoko Hiramatsu | 030682-106 | 1252 |

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EXAMINER

CARTER, TIA A

| ART UNIT | PAPER NUMBER |
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2626

DATE MAILED: 07/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/725,716

Applicant(s)

HIRAMATSU, NAKO

Examiner

Tia A Carter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagae (US. 6198552).

Regarding claim 1, Nagae discloses a color management system to be connected with a plurality of output devices, which execute color reproduction in accordance with image data (fig. 1, col. 3, lines 18-21), said color management system comprising:

Means for obtaining a plurality of color reproduction regions from at least two output devices included in said plurality of output devices, said plurality of color reproduction regions corresponding to regions in color space where said at least two output devices can reproduce color, respectively (fig. 1, col. 9, lines 39-45);

Means for generating a common color reproduction region included in any of said plurality of color reproduction regions (fig. 1, col. 9, lines 45-48); and

Means for restricting range of color information included in image data to said common color reproduction region before said image data is handled (figs. 17a-b, col. 19, lines 55-67 and col. 20, lines 1-8).

Regarding claim 2, Nagae discloses the color management system of claim 1, wherein
Said at least two output devices are all of said plurality of output devices (fig. 1, col. 9, lines 34-41).

Regarding claim 3, Nagae discloses the color management system of claim 1, wherein said at least two output devices which reproduce color through a specific process among said plurality of output devices (fig. 1, col. 9, lines 34-61).

Regarding claim 4, Nagae discloses the color management system of claim 3, wherein said devices, which reproduce color through said specific process, are displays (fig. 4, col. 11, lines 40-42).

Regarding claim 5, Nagae discloses the color management system of claim 3, wherein said devices, which reproduce color through said process, are printers (fig. 1, col. 9, lines 58-59).

Regarding claim 6, Nagae discloses a color management system of claim 3, wherein

Said means for obtaining said plurality of color reproduction regions and said means for generating said common color reproduction region further generate another common color reproduction region related to at least two output devices which reproduce color through another specific process among said plurality of output devices (fig. 2, col. 10, lines 29-40), and

Said color management system further comprising

Means for converting color information included in said common color reproduction region to color information included in said another common color reproduction region (fig. 2, col. 10, lines 44-48).

Regarding claim 7, Nagae discloses the color management system of claim 1, further comprising means for mapping input image data on said common color reproduction region (fig. 2, col. 10, lines 29-40).

Regarding claim 8, Nagae discloses the color management system of claim 1, wherein said plurality of output devices are connected to a computer network (fig. 4, col. 11, lines 32-35).

Regarding claim 9, Nagae discloses the color management system of claim 1, further comprising means for detecting an output device connected additionally and

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including said output device in said plurality of output devices (fig. 1, col. 23, lines 12-15).

Regarding claim 10, Nagae discloses the color management system of claim 1, wherein said common color reproduction region is generated as a region in common color space independent of said at least two output devices (figs. 14a-c, col. 17, lines 46-50),

Said means for restricting range of color information generates a profile for converting said region in said common color space to a region in color space for editing image data (figs. 14a-c, col. 18, lines 30-39),

Said color management system handles said image data in said color space for editing (fig. 15, col. 18, lines 40-55).

Regarding claim 11, Nagae discloses the color management system of claim 10, wherein said common color space is L*a*b* color space (fig. 1, col. 9, lines 40-41).

Regarding claim 12, Nagae discloses the color management system of claim 10, wherein said common color space is XYZ color space (fig. 1, col. 9, lines 41-45).

Regarding claim 13, Nagae discloses the color management system of claim 10, wherein said color space for editing is RGB color space (fig. 1, col. 9, lines 49-51).

Regarding claim 14, Nagae discloses the color management system of claim 1, wherein said means for generating said common color reproduction region generates a maximum region included in any of said plurality of color reproduction regions as said common color reproduction region (fig. 15, col. 19, lines 18-29).

Regarding claim 15, Nagae discloses the color management system of claim 1, wherein said at least two output devices include both of an output device using RGB color space and an output device using CMY color space (fig. 7, col. 14, lines 30-35).

Regarding claim 16, Nagae discloses the color management system of claim 15, wherein said output device using RGB color space is a display, and said output device using CMY color space is a printer (fig. 7, col. 14, lines 30-35).

Regarding claim 17, Nagae discloses the color management system of claim 1, wherein said means for generating said common color reproduction region approximates said common color reproduction region to a polyhedron (see fig. 18B)

Regarding claim 18, Nagae discloses a color managing method performed on a color management system to be connected with a plurality of output devices, which execute color reproduction in accordance with image data (fig. 1, col. 3, lines 18-21), said color managing method comprising the steps of:

a) Obtaining a plurality of color reproduction regions from at least two output devices included in said plurality of output devices, said plurality of color reproduction regions corresponding to regions in color space where said at least two output devices can reproduce color (fig. 1, col. 9, lines 39-45), respectively;

b) generating a common color reproduction region included in any of said plurality of color reproduction regions (fig. 1, col. 9, lines 45-48); and

c) restricting range of color information included in image data to said common color reproduction region before said image data is handled (figs. 17a-b, col. 19, lines 55-67 and col. 20, lines 1-8).

Regarding claim 19, Nagae discloses the color managing method of claim 18, further comprising the steps of

d) including an output device connected to said color management system additionally in said plurality of output devices, and performing said steps a) to c) (fig.1, col. 23, lines 12-15).

Regarding claim 20, Nagae discloses the color managing method of claim 18, wherein

Said common color reproduction region is generated as region in common color space independent of said at least two output devices (figs. 14a-c, col. 17, lines 46-50), and

A profile for converting said region in said common color space to region on color space for editing image data is generated in said step c) (fig. 14a, col. 17, lines 56-66),

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Said method further comprising the step of handling said image data in said color space for editing (fig. 15, col. 18, lines 40-55).

Regarding claim 21, Nagae discloses the color management system of claim 20, wherein said color space for editing is RGB color space (fig. 1, col. 9, lines 49-51).

Regarding claim 22, Nagae discloses the color management system of claim 18, wherein a maximum region included in any of said plurality of color reproduction regions is generated as said common color reproduction region in said step b) (fig. 15, col. 19, lines 18-29).

Regarding claim 23, Nagae discloses the color management system of claim 18, wherein said at least two output devices include both of an output device using RGB color space and an output device using CMY color space (fig. 7, col. 14, lines 30-35).

Regarding claim 24, Nagae discloses the color management system of claim 23, wherein

Said output device using RGB color space is a display, and said output device using CMY color space is a printer (fig. 7, col. 14, lines 30-35).

Regarding claim 25, Nagae discloses a program product for color managing on a computer connected with a plurality of output devices which execute color reproduction

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in accordance with image data, wherein execution of said program product by said computer causes said computer to perform a process (fig. 1, col. 3, lines 18-21) comprising the steps of:

a) obtaining a plurality of color reproduction regions from at least two output devices included in said plurality of output devices, said plurality of color reproduction regions corresponding to regions in color space where said at least two output devices can reproduce color (fig. 1, col. 9, lines 39-45), respectively;

b) generating a common color reproduction region included in any of said plurality of color reproduction regions (fig. 1, col. 9, lines 45-48); and

c) restricting range of color information included in image data to said common color reproduction region before said image data is handled (figs. 17a-b, col. 19, lines 55-67 and col. 20, lines 1-8).

Regarding claim 26, Nagae discloses the color managing method of claim 25, wherein

Said common color reproduction region is generated as region in common color space independent of said at least two output devices (fig. 14a, col. 17, lines 46-50), and

A profile for converting said region in said common color space to region on color space for editing image data is generated in said step c) (fig. 14a, col. 17, lines 56-66),

Said method further comprising the step of handling said image data in said color space for editing (fig. 15, col. 18, lines 40-55).

Regarding claim 27, Nagae discloses the color management system of claim 25, wherein said color space for editing is RGB color space (fig. 1, col. 9, lines 49-51).

Regarding claim 28, Nagae discloses the color management system of claim 25, wherein a maximum region included in any of said plurality of color reproduction regions is generated as said common color reproduction region in said step b) (fig. 15, col. 19, lines 18-29).

Regarding claim 29, Nagae discloses the color management system of claim 25, wherein said at least two output devices include both of an output device using RGB color space and an output device using CMY color space (fig. 7, col. 14, lines 30-35).

Regarding claim 30, Nagae discloses the color management system of claim 29, wherein

Said output device using RGB color space is a display, and said output device using CMY color space is a printer (fig. 7, col. 14, lines 30-35).

Regarding claim 31, Nagae discloses a color management system to be connected with plurality of output devices which execute color reproduction in accordance with image data, said color management system comprising:

A memory in which a program is stored (fig. 4, col. 11, lines 20-25); and

A processor performing a process in accordance with said program stored in said memory (fig. 4, col. 11, lines 27-29), said process comprising the steps of:

a) obtaining a plurality of color reproduction regions from at least two output devices included in said plurality of output devices, said plurality of color reproduction regions corresponding to regions in color space where said at least two output devices can reproduce color (fig. 1, col. 9, lines 39-45), respectively;

b) generating a common color reproduction region included in any of said plurality of color reproduction regions (fig. 1, col. 9, lines 45-48); and

c) restricting range of color information included in image data to said common color reproduction region before said image data is handled (figs. 17a-b, col. 19, lines 55-67 and col. 20, lines 1-8).

Regarding claim 32, Nagae discloses the color management system of claim 31, wherein

Said common color reproduction region is generated as region in common color space independent of said at least two output devices (figs. 14a-c, col. 17, lines 46-50), and

A profile for converting said region in said common color space to region on color space for editing image data is generated in said step c) (fig. 14a, col. 17, lines 56-66),

Said method further comprising the step of handling said image data in said color space for editing (fig. 15, col. 18, lines 40-55).

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Regarding claim 33, Nagae discloses the color management system of claim 32, wherein said color space for editing is RGB color space (fig. 1, col. 9, lines 49-51).

Regarding claim 34, Nagae discloses the color management system of claim 31, wherein a maximum region included in any of said plurality of color reproduction regions is generated as said common color reproduction region in said step b) (fig. 15, col. 19, lines 18-29).

Regarding claim 35, Nagae discloses the color management system of claim 31, wherein said at least two output devices include both of an output device using RGB color space and an output device using CMY color space (fig. 7, col. 14, lines 30-35).

Regarding claim 36, Nagae discloses the color management system of claim 35, wherein

Said output device using RGB color space is a display, and said output device using CMY color space is a printer (fig. 7, col. 14, lines 30-35).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Higgins et al. (US. 5835627), Edge et al. (6088038), Edge et al. (US. 6362808) and Gregory et al. (US. 5818960) are cited to show related art with respect to plural devices with color management and compensation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tia A Carter whose telephone number is 703 - 306-5433. The examiner can normally be reached on M-F (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on 703-305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tia A Carter
Examiner
Art Unit 2626



TAC

June 16, 2004



MADELINE NGUYEN
PATENT EXAMINER